



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,426	06/09/2006	Sheng Liu	8231.016	3868
28410 7590 04/15/2008 BERENATO, WHITE & STAVISH, LLC 6550 ROCK SPRING DRIVE SUITE 240 BETHESDA, MD 20817				
EXAMINER KHAN, MEHMOOD B				
ART UNIT 2617		PAPER NUMBER		
MAIL DATE 04/15/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,426

Applicant(s)

LIU ET AL.

Examiner

MEHMOOD B. KHAN

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 06/09/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the Abstract is over 150 words in length and contains legal phraseology. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 10-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claims 10-14 are designated as system claims while being dependent on claim 7 which is a method claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. Claims 1, 2, 3, 6-10, 13-15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara (US 7,242,933) in view of Sarkinen et al. (US 2003/0119533 herein Sarkinen).

Claim 1, Ahmavaara discloses a method for user equipments (UE) mobility management in a mobile communication system (Abstract), Ahmavaara discloses said first RNC forwarding to the core network said RRC signaling message (Col 7: 21-24, where Ahmavaara discloses moving the RRC PDU to a core network); Ahmavaara discloses the core network forwarding transparently to a second RNC RRC signaling message (Col 7: 27-33, where Ahmavaara discloses transparency); Ahmavaara discloses the second RNC receiving and utilizing the forwarded RRC signaling message to perform the requested mobility management (Col 5: 27-29, Col 7: 15-19, where Ahmavaara discloses mobile movement, initialization of the second controller).

Ahmavaara does not disclose the UE transmitting uplink an RRC signaling message to a first RNC so as to request UE mobility management.

In an analogous art, Sarkkinen discloses the UE transmitting uplink an RRC signaling message to a first RNC so as to request UE mobility management (0078, Fig. 3, where Ahmavaara discloses the UE sends a RRC uplink direct transfer). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify RRC PDU Ahmavaara as the uplink RRC in Sarkkinen so as to so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (0014).

Claim 8, Ahmavaara discloses a mobile communication system for user equipments mobility management (Abstract), Ahmavaara discloses said first RNC comprises means for receiving and forwarding to the core network said RRC signaling message (Col 7: 21-24, where Ahmavaara discloses moving the RRC PDU to a core network); Ahmavaara discloses the core network comprises means for forwarding transparently to a second RNC said RRC signaling message (Col 7: 27-33, where Ahmavaara discloses transparency); Ahmavaara

Art Unit: 2617

discloses the second RNC comprises means for receiving and utilizing the forwarded RRC signaling message to perform the requested mobility management (Col 5: 27-29, Col 7: 15-19, where Ahmavaara discloses mobile movement, initialization of the second controller).

Ahmavaara does not disclose the UE comprises means for transmitting uplink the RRC signaling message to a first RNC so as to request the UE mobility management.

In an analogous art, Sarkkinen discloses the UE comprises means for transmitting uplink the RRC signaling message to a first RNC so as to request the UE mobility management (0078, Fig. 3, where Ahmavaara discloses the UE sends a RRC uplink direct transfer). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify RRC PDU Ahmavaara as the uplink RRC in Sarkkinen so as to so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (0014).

Claim 2, Ahmavaara discloses a determining step for determining whether there exists a link between said first RNC and said second RNC, before the step in which the first RNC forwards said RRC signaling message (Col 7: 11-15, where Ahmavaara discloses sending directly over the Iur interface).

Comment [MBK1]: arg - it transmits, and hence it must have determined that there exists a link

Ahmavaara does not disclose an uplink RRC signaling message.

In an analogous art, Sarkkinen discloses an uplink signaling message (Fig. 3, where Sarkkinen discloses an uplink direct transfer). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify RRC PDU Ahmavaara as the uplink RRC in Sarkkinen so as to so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (0014).

Claim 3, Ahmavaara does not disclose said first RNC is a destination RNC communicating with said UE; said second RNC is a serving RNC for controlling said UE and causing said UE to communicate with the core network.

In an analogous art, Sarkkinen discloses said first RNC is a destination RNC communicating with said UE; said second RNC is a serving RNC for controlling said UE and causing said UE to communicate with the core network (Fig. 3, where Sarkkinen discloses a New RNC, an Old RNC, a CN and an UE). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara by using RRC signaling from the UE as taught by Sarkkinen so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (0014).

Claim 6, Ahmavaara does not disclose said UE transmits via a Common Control Channel (CCCH) an RRC signaling message for requesting cell update .

In an analogous art, Sarkkinen discloses said UE transmits via a Common Control Channel (CCCH) an RRC signaling message for requesting cell update (0071, where Sarkkinen discloses a CCCH). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara with RRC signaling on the CCCH as taught by Sarkkinen so as to identify cell information (0068).

Claim 7, as analyzed with respect to the limitations as discussed in claim 6.

Claim 9, as analyzed with respect to the limitations as discussed in claim 2.

Claim 10, as analyzed with respect to the limitations as discussed in claim 3.

Claim 13, as analyzed with respect to the limitations as discussed in claim 6.

Claim 14, as analyzed with respect to the limitations as discussed in claim 7.

Art Unit: 2617

Claim 15, as analyzed with respect to the limitations as discussed in claim 3.

Claim 17, as analyzed with respect to the limitations as discussed in claim 6.

Claim 18, as analyzed with respect to the limitations as discussed in claim 7.

Claim 19, as analyzed with respect to the limitations as discussed in claim 3.

7. Claims 4, 5, 11, 12, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara (US 7,242,933) in view of Sarkkinen et al. (US 2003/0119533 herein Sarkkinen) in view of Laiho et al. (US 7,127,251 herein Laiho).

Claim 4, Ahmavaara discloses said uplink RRC signaling message as an RANAP signaling message is transmitted from said first RNC to said core network via the lu interface (Col 7: 21-26, where Ahmavaara discloses RANAP signaling).

Ahmavaara does not disclose Message Type, Source ID, Target ID and RRC information relevant to the mobility management requested by the UE.

In an analogous art, Sarkkinen discloses Message Type, and RRC information relevant to the mobility management requested by the UE (Fig. 7, where Sarkkinen discloses Message Type). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara by using RRC signaling from the UE as taught by Sarkkinen so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (0014).

Ahmavaara in view of Sarkkinen does not disclose a Source ID, Target ID.

In an analogous art, Laiho discloses a Source ID, Target ID (Fig. 6, where Laiho discloses a Source ID and a Target ID). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara in view of

Sarkkinen by using a source and target ID as taught by Laiho so as to mitigate confusion at the target RNC (Col 2: 58-61).

Comment [MBK2]: arg - this will provide information to bearer paths etc to set up.

Claim 5, Ahmavaara does not disclose Source ID identifies the second RNC, Target ID identifies the first RNC, and RRC information relevant to the mobility management requested by the UE is defined as cell update message or URA update message.

In an analogous art, Sarkkinen discloses RRC information relevant to the mobility management requested by the UE is defined as cell update message or URA update message (Figs. 4, 5, where Sarkkinen discloses a cell and URA updates). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara by using RRC signaling from the UE as taught by Sarkkinen so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (0014).

Ahmavaara in view of Sarkkinen does not disclose Source ID identifies the second RNC, Target ID identifies the first RNC (Fig. 6, where Ahmavaara discloses a Source ID and a Target ID). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara in view of Sarkkinen by using a source and target ID as taught by Laiho so as to mitigate confusion at the target RNC (Col 2: 58-61).

Comment [MBK3]: arg - this will provide information to bearer paths etc to set up.

Claim 11, as analyzed with respect to the limitations as discussed in claim 4.

Claim 12, as analyzed with respect to the limitations as discussed in claim 5.

Claim 16, as analyzed with respect to the limitations as discussed in claim 4.

Claim 20, as analyzed with respect to the limitations as discussed in claim 4.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MEHMOOD B. KHAN whose telephone number is (571)272-9277. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mehmood B. Khan/ - Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617